

**4/28/03; Revised 5/16/03**

**Meeting minutes for *E. coli* Rulemaking Workgroup  
March 28, 2003, 12:30 PM to 3:30 PM  
Tippecanoe County Extension Office**

**Attendees include:**

Mary Ellen Gray, Dennis Clark, Barb Lollar, Paul Werderitch, Roseann Hirshinger, Richard Van Frank, Reggie Baker, Teresa Lewis, Cyndi Wagner, Robin Feller, Lynn Newvine, Jim Meyer, Dan Olson, Tom Ungar, Tom Anderson, Ron Turco, David Kallander, Catherine Hess, Martha Clark, Kiran Verma. Holly Wirick, U.S. EPA attended via conference call.

**Timelines and milestones**

Mary Ellen indicated that today we would be discussing the timelines and setting milestones and dates for future meetings. She indicated that at the last meeting the Workplan was discussed and a revised workplan had been sent out. She had received no comments on the revised workplan. She drew attention to Task 8 of the Workplan that had the timeline of March 1, 2003. No comments were received regarding the January 15, 2003 minutes.

She proposed that based on the workplan and the issues, together with new first notice template, we would bring a draft first notice for discussion at the next meeting, with a goal to have it submitted by May 10, 2003, and published in the June 1, 2003, Indiana Register. Items for the meeting will be sent out electronically a week before the May meeting. October 1, 2003 is the proposed date for the second notice with September 10, 2003 as the submittal date.

The dates and locations for the monthly *E. coli* Rulemaking Workgroup meetings, which will run from 12:30 p.m. to 3:30 p.m., are as follows:

May 7, West Lafayette City Hall Courtroom  
June \_\_, *To be discussed at next meeting*  
July 2, Tippecanoe County Extension Office  
Aug 6, Tippecanoe County Extension Office  
Sept. \_\_, *To be discussed at next meeting*  
October 1, Tippecanoe County Extension Office  
Nov. 5, Tippecanoe County Extension Office  
December 3, Tippecanoe County Extension Office

Materials are to be sent out by April 30<sup>th</sup> for the May 7<sup>th</sup> meeting.

**Report from IDEM on modeling for downstream impacts of *E. coli*:**

Dave Kallander reported that he had contacted ORSANCO about their model. He indicated that they used rather complex modeling and therefore was not very usable. He

will be discussing this with John Elliot of our modeling section. We need to get decay rates for *E. coli*. Dick Van Frank suggested that IDEM work with the Indy Clean Stream Team as they have done a lot of modeling. Paul Werderitch questioned whether decay rates would take into account seasonal changes. Ron Turco pointed out that decay rates would be dependent on nutrients, light, turbidity and other factors. Dick Van Frank indicated that the decay rate would have to be a range if seasonal changes are to be factored in. Dave Kallander cautioned that there is very little data to be found on decay rates.

### **Report from Reggie Baker on Human vs. Non-human sources of *E. coli***

Reggie Baker reported that there has been a shift in the thinking of U.S. EPA since the original policy in the 1994 Water Quality Standards Handbook which took only human fecal contamination into consideration in looking at primary contact recreation designations. U.S. EPA no longer believes that the earlier position is supported by available scientific data. Data suggests that there is some risk to humans as a result of exposure to microorganisms resulting from non-human fecal contamination. Warm-blooded animals other than humans may be responsible for transmitting pathogens capable of causing illness in humans, for example, outbreaks of *E. coli* 0157:H7, Salmonella, Giardia, and Cryptosporidium. States may no longer use broad exemptions from the bacteriological criteria for water designated for primary contact recreation based on the presumption that high levels of bacteria resulting from non-human fecal contamination present no risk to human health.

On being asked, Holy Wirick replied that the *E. coli* methodology guidance will be out by the end of April but she would check on that and get back with us. (Later e-mail indicates the proposed date to be June, 2003).

Reggie also mentioned the National Recreational Use guidance and the use of 40 CFR 131 Use Attainability Analysis (UAA) as it applies to Use Designations and change in designations. U.S. EPA may bring out issue papers on this subject. Mary Ellen mentioned that there is a national discussion on this and U.S. EPA has committed to work with states on Recreational Uses.

### **Full Body Contact classifications**

Dennis Clark discussed the outline that IDEM prepared on Primary Contact/Risk Designations. U.S. EPA has recognized that states could use different risk levels and still come under primary recreation use. In the May 2002 Draft U.S. EPA Implementation Guidance for Ambient Water Quality Criteria for Bacteria provides that states may adopt *E. coli* criteria within the range of recommended illness rates, no more than 14 illnesses per 1000 swimmers in fresh waters, for their primary contact recreation waters. For waters that are heavily used swimming areas, and where necessary to protect downstream primary contact recreation uses, U.S. EPA recommends adopting a criteria based on lower illness rates, for example, 8 illness per 1000 swimmers for fresh waters, or a more conservative single sample maximum.

In the last meeting the workgroup discussed the possibility of having three categories, all of which would still have a full-body contact recreational use designation but would

have different risk levels associated with them. Currently the applicable *E. coli* criteria for all waters in Indiana are based on the 8 illnesses/1000 swimmers risk level and 75% confidence level. The criteria consist of a 125 cfu/100 ml geometric mean and 235 cfu/100 ml for a single sample. These criteria are considered the default criteria since they are the existing criteria and other requirements would have to be met for a water body or segment to be assigned a different risk level with different *E. coli* criteria.

The first category would be the default category with a risk level of 8 illnesses/1000 swimmers risk level. These would include waters that should receive the highest level of protection of and therefore cannot be reclassified, such as lakes, public beaches, and known primary contact recreational areas.

The second category would consist of those waters that were not known to be used for primary contact recreational purposes but have the potential for such use. The risk level (and criteria) could vary from 8 illnesses to 14 illnesses. A local government would have to petition IDEM and demonstrate that they could not support the 8 illnesses/1000 risk level, to have them reclassified into the second category. Examples in this category include small streams that flow through neighborhoods.

The third category would consist of those waters where one normally would not expect people to be engaging in primary contact recreational activities. The risk level would be 14 illnesses per 1000 swimmers and downstream uses would have to be protected. Examples in this category include roadside ditches and agricultural ditches.

#### **Discussion:**

Holly Wirick from U.S. EPA informed the group that U.S. EPA was considering changing the acceptable range of risk levels from 8 to 10 illnesses/per 1000, with the higher level being 10 (instead of 14).

Barb Lollar explained that the group had previously discussed having three categories of primary contact designations, two of which would include waters automatically placed there by IDEM (the most protective risk level and the least protective risk level). The group had discussed automatically making certain waters such as agricultural and roadside ditches subject to the least protective risk level, without requiring a petition from anyone to move a water into that category. IDEM staff had subsequently discussed whether that was appropriate or whether the local community should first be given a chance to say whether they wanted that water subject to less protection before IDEM moved it. IDEM staff wanted the group's input on that matter, plus whether it might make more sense to have only two categories of risk levels (especially if U.S. EPA only allows an upper range of 10 illness/1000). She also informed the group that U.S. EPA uses the term "primary contact" in their guidance instead of Indiana's term "full body contact" and that U.S. EPA's definition appears to be broader than Indiana's.

There was a discussion about the terminology that should be used and the definitions. It was agreed that terms need to be tightened up. A question was thrown out whether we should amend our definition to mirror U.S. EPA's definition. It was mentioned that the

term “Recreational Use” gets fuzzy. A question was raised that if we use only full body contact, we’d be less protective and can we do that? The designation should be based on science and we have to be careful how good the science is. There is no new scientific data out. Mary Ellen indicated that we need to have more clarity on what Indiana’s designation means and the federal designation means.

Dennis Clark explained that the purpose of the designations is to keep people from getting sick. We have to look at how people get exposed to water and how to protect them.

Mary Ellen summarized that discussion by saying that it would seem that we should continue to move forward with different risk levels. We would keep the issue of two versus three categories as an item for further discussion, pending U.S. EPA’s decision on the 8/10/14 risk levels. We also need to look at Indiana state department of health’s *E. coli* rule.

Mr. Van Frank commented that the risk levels are based on studies only on adult humans age eighteen and older and only for gastrointestinal illnesses. He pointed out that risk levels are not based on studies on children who are more susceptible to such diseases.

Regarding the public participation question, Mary Ellen asked the group to give their thoughts on the process and type of participation. One question was whether there should be public participation outside of the public hearings and comment periods provided for in the rulemaking itself. One option was that every water would be automatically classified and it would be left up to the local authority to petition for a change. No clear consensus was reached on this matter.

IDEM needs to look at 303(d) list and see if 8 and 10/1000 makes a difference. Municipalities need to look at whether 8/1000 and 10/1000 makes a difference or is it a moot point if the higher standard cannot be met downstream. It was mentioned that this would make a huge difference from a compliance standpoint for a POTW, but scientifically may not be a huge difference.

One option discussed by Denny was if adopting two risk levels, 8 being the more stringent protection level for beaches etc., the default being 10 for everything else. Persons wanting a more stringent level of protection would have to petition to move the water into the risk level of 8 illnesses/1000 if they feel some waters should have the more stringent protection. The counter argument was that this would simply not occur.

Mary Ellen proposed that on the issue regarding whether there should be a partial body (or secondary) contact use designation, we need to have more information. Regarding the pros and cons of the issue, the pro is that the partial body contact designation may provide legitimate regulatory relief to communities with CSOs. On the cons it was discussed that there is no new science available which could be availed of during this rule making process to help determine what scientifically based water quality criteria for this use would be. Another question unanswered is how will we protect downstream uses and

how will we determine that. A concern raised was whether a secondary contact designation would encourage abusers. UAAs (Use Attainability Analysis) would still be needed for partial body contact designation. There was a question on where U.S. EPA's policy of allowing water quality criteria for secondary contact to be set at five times the primary contact geometric mean came from and which confidence level it could be set at today; Holly was not sure.

### **Next Steps**

Mary Ellen indicated that we should to look at what kind of information is needed to explore the partial body contact designation issue.

- What criteria would be protective of that use?
- Look at guidance on primary contact definition, excerpt the definition to bring back to the group.
- Dave Kallander to look for additional information on criteria.
- Reggie Baker to put together definitions from other states.
- Wait to hear from U.S. EPA regarding the risk levels. (Already received the preliminary information)
- Look at 303(d) list.
- Dave Kallander and Roseanne to look into the issue whether *E. coli* is the appropriate indicator organism

### **Next Meeting Issues**

- Discuss draft of First Notice.
- Discussion on secondary standards.
- Discussion on Antidegradation and how it impacts potential designations.

### **Next Meeting**

May 7, 2003

12:30 – 3:30 p.m.

West Lafayette City Hall Court Room